ABSTRACT OF THE DISCLOSURE

Apparatus for manufacturing or processing articles includes smart microcontroller boards which cooperate with sensor means and communication means to monitor and control manufacturing process. A microcontroller board or network, including a plurality of microcontroller boards disposed within a container create a microprocessor module which is secured to the apparatus for controlling the same responsive to information provided to them. Sensors are provided for monitoring operation of the apparatus and providing such information to the microcontroller boards. The communication system provides for communication between the sensors and the microcontroller boards and between the microcontroller boards and other portions of the apparatus which are to be subjected to responsive control. In a preferred embodiment, the microcontroller boards are positioned within a container which is secured in a recess in the apparatus and has an overlying material covering boards such that efforts to remove the material will at least partially destroy the chips. The microcontroller boards and container serve to provide a_modular unit which can be installed and removed as a unit. A plurality of microcontroller modules may be employed in a system. Associated methods are disclosed.